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10/600,924	06/19/2003	Chu Hui-Ling	HO0310	6201

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EXAMINER	
DUFFIELD, JEREMY S	

ART UNIT	PAPER NUMBER
2609	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/600,924	HUI-LING, CHU	
	Examiner	Art Unit	
	Jeremy Duffield	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 9 and 11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the examiner will consider claims 9 and 11 as dependent to claim 8.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 8, 10-13, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Klopfenstein (US 6,978,471).

Regarding claim 8, Klopfenstein teaches a method to encode the TV channels in the 2-dimension order by re-organizing their access paths and sequence (Col. 7, lines 55-58). The TV channels are arranged in 2 hierarchies, the folder code channels in the 2nd hierarchy of non-fixed number of digits denoting the sub-channels within a directory code channel (Col. 1, lines 43-46).

Klopfenstein uses the PSIP protocol, which has a channel information table (CIT) that contains the major channel number and its allocated space and so inherently teaches the directory code channels in the 1st hierarchy of fixed number of digits denoting major channels.

Regarding claim 10, Klopfenstein teaches a "window"; i.e. sub-menu; that shows up in a TV screen to display the folder code channels for TV user's selection if there are folder code channels within this directory code channel (Fig. 10, el. 930).

Regarding claim 11, Klopfenstein further teaches

(a) "Up", "Down", "Right", and "Left" function followed by "Enter" function, when a folder code window is shown on the screen (Col. 10, lines 14-19).

(b) When the TV is playing a folder code channel, directly entering the folder code under the same directory code (Col. 9, lines 23-25).

(c) When TV is playing a directory code channel, only the folder code channels within this directory code channel can be selected by means of (a) or (b) (Col. 10, lines 14-19).

Regarding claim 12, Klopfenstein further teaches when the TV is playing a directory code channel, the TV user has direct access to other directory code

channels or the folder code channels within the currently played directory code channel (Col. 9, lines 59-Col. 10, line 5).

Regarding claim 13, Klopfenstein further teaches the method to encode the TV channels in the 2- dimension order is applied on the currently existing TV systems (Col. 1, lines 32-42).

Regarding claim 14, Klopfenstein further teaches the method to encode the TV channels in the 2- dimension order is able to take various channel sources including wireless broadcasting (Fig. 1, el. 74), cabled broadcasting (Fig. 1, el. 78), web system and internet (Fig. 1, el. 72) and reorganize them as TV channels in 2 hierarchies denoted by the directory codes and the folder codes (Col. 3, lines 5-8).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schindler (US 5,838,384) in view of Klopfenstein.

Regarding claim 1, Schindler teaches a personal computer taking signals inputted from various channel sources (Fig. 1a, el. 114, 174) and having:

an input receiver to take instructions sent from a TV remote controller operated by a TV user (Fig. 3, el. 324);

a micro-processor to process the instructions from input receiver based on the programs stored in the memory to make decision on TV channel selecting (Fig. 3, el. 310);

a LAN module (Fig. 3, el. 322) as signal receiver from web system or internet, and output to VGA display module for TV;

a tuner (Fig. 4, el. 410) to receive broadcasting signals and output to VGA display module for TV;

a memory module, which the data and programs needed for system operation are stored in, read from and written to (Fig. 1b, el. 134);

a VGA display module for TV (Fig. 3, el. 318, which takes signals from tuner or LAN module, and then outputs to TV sets (Fig. 1a, el. 150, 122, 122').

Schindler does not clearly teach a 2-dimension channel coding system, and re-organizing the signals' access paths and sequence in a 2-dimension order.

Klopfenstein teaches a 2-dimension channel coding system, and re-organizing the signals' access paths and sequence in a 2-dimension order (Fig. 10, el. 905, 915, 920, and 925).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schindler's personal computer to have a 2- dimension channel coding system, and re-organizing a signal's access path and sequence in a 2-dimension order (Fig. 10, el. 905, 915, 920, and 925) so as to provide the 2-dimension coding system to a user with the use of a personal computer.

Regarding claim 2, Schindler in view of Klopfenstein (Fig. 10) teaches the 2-dimension channel organization consists of the directory code channels; i.e. virtual channel major numbers (Fig. 10, el. 905); in the 1st hierarchy and the folder code channels; i.e. virtual channel minor numbers or sub-channels (Fig. 10, el. 915, 920, and 925); in the 2nd hierarchy.

Regarding claim 3, Schindler (Col. 8, lines 30-32) in view of Klopfenstein further teaches the input receiver is an RF receiver.

Regarding claim 4, Schindler (Fig. 3, el. 322) in view of Klopfenstein further teaches the LAN module is a LAN card used in personal computer industry.

Regarding claim 6, Schindler in view of Klopfenstein teaches the memory module contains the data as follows:

Klopfenstein discloses the following software and parameters for use with Schindler's memory:

a) Operating system and execution programs (Col. 3, lines 29-39);

b) Directory code and folder code table, which is a database containing all information about the valid channels (Col. 4, lines 36-46);

c) Current Directory Code Channel XXX and Current Folder Code Channel YYY; Klopfenstein inherently teaches a current directory code channel and a current folder code channel in the memory module because the system has to have these parameters to determine which channel is currently being viewed when the user interrupts to switch to EPG mode and vice versa (Col. 5, lines 44 - Col. 6, lines 50);

d) Cursor Position, a parameter containing the folder code on which a cursor is placed when a folder code window is shown; Klopfenstein teaches when the user places the cursor on a channel (Fig. 10, el. 905), the system displays the sub-window; In view of that the system must know the cursor position so to trigger the sub-window displaying the folder code channels (Fig. 10, el. 915, 920, 925);

(e) Directory/Folder Mode Flag, a parameter to indicate that the channel being played now is a directory code channel or a folder code channel; a directory code channel is associated with a PTC number and a folder code channel is identified by the actual channel number followed by a dash and then another number designating its minor number (Col. 9, lines 8-16).

(f) Window Show Up Flag, a parameter to indicate if there is a folder code window showing up in the TV screen; Klopfenstein inherently teaches a window show up flag because the parameter is needed for the purpose of allowing the user to see each folder code channel in the window; i.e. each sub-channel in the sub-menu (Col. 10, lines 1-4), (Col. 3, lines 58-63).

Regarding claim 7, Schindler in view of Klopfenstein (Col.7, lines 55-58) inherently teaches the directory code and folder code table; i.e. channel map; of the memory module contains:

(a) All directory code channels and their frequencies at tuner or web address accessible through LAN module; Inherently, channel information includes each individual channel's frequency for the purpose of tuning in a user selected channel;

(b) All the folder code channels under every directory code channel;

(c) The frequency or web address of each folder code channel under a directory code; Inherently, channel information includes each individual channel's frequency for the purpose of tuning in a user-selected channel.

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schindler in view of Klopfenstein and further in view of Dischert (US 7,102,691).

Regarding claim 5, Schindler in view of Klopfenstein teaches all elements in claim 1.

Schindler in view of Klopfenstein does not teach the VGA display module outputs to TV sets in super VHS terminals; i.e. s-video connector.

Dischert teaches a video link between a television set and a Convergence system using an s-video link (Fig. 3, el. 253; Col. 6, lines 55-Col. 7, line 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schindler's VGA display module to include an S-video connector as taught by Dischert, so as to display audio/video signals on a television set using an S-video cable as an alternative.

3. Claims 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klopfenstein in view of Gerba (US 6,452,611).

Regarding claim 9, Klopfenstein further teaches the directory code channels can be accessed by:

a) using the "channel up" and "channel down" function of the remote controller when TV is playing a directory code channel (Col. 9, lines 59-63).

b) directly enter the directory code in digits when TV is playing a directory code channel (Col. 9, lines 8-10).

Klopfenstein does not clearly teach the use of a "back" function to return to the directory code channel.

Gerba teaches when the TV is playing a folder code channel, use a "back" function to return to its directory code channel (Fig. 4B, el. 94). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Klopfenstein to include a "back" function so as to make it easier to access the rest of the directory code channels from a folder code window.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Duffield whose telephone number is (571) 270-1643. The examiner can normally be reached on Mon.-Thurs. 7:30 A.M.-5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Tran can be reached on (571) 272-7305. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSD
August 14, 2007

SCOTT E. BELIVEAU
PRIMARY PATENT EXAMINER